

RECEIVED
CENTRAL FAX CENTER

OCT 31 2007

IN THE CLAIMS:

1. (Currently amended) An intravertebral reduction system, comprising:
a plurality of reduction elements positionable in an intravertebral space adjacent one another in contact with bony tissue, wherein said plurality of reduction elements act one upon the other upon sequential positioning thereof in the intravertebral space to compress cancellous bony tissue and apply an outwardly directed corrective force in the intravertebral space to restore the vertebral body, wherein said plurality of reduction elements are selected in number to occupy a volume within the intravertebral space that reduces a vertebral fracture and restores the vertebral body;

voids between respective ones of said plurality of reduction elements; and
means for rigidly fixing said plurality of reduction elements at said volume in engagement with one another in the intravertebral space for post-operative maintenance of the reduction of the vertebral body, said means including material filling said voids and locking said plurality of reduction elements relative to one another.

2. (Withdrawn) The system of claim 1, wherein said plurality of reduction elements are linked to one another.

3. (Withdrawn) The system of claim 2, wherein said plurality of reduction elements are linked by a connecting element extending through said plurality of reduction elements.

4. (Withdrawn) The system of claim 2, wherein said plurality of reduction elements are linked by a connecting element extending between adjacent ones of said plurality of reduction elements.

5. (Original) The system of claim 1, wherein said plurality of reduction elements each include a spherical shape.

Amendment with RCE
Ser. No. 10/648,056
Atty Docket No. MSDI-77/PC753.00
Page 2 of 13

6. (Original) The system of claim 1, wherein said plurality of reduction elements are comprised of a material selected from the group consisting of: PMMA, resorbable polymers, and calcium hydroxide.

7. (Original) The system of claim 1, wherein at least a portion of said plurality of reduction elements include exterior surface features to facilitate engagement between adjacent reduction elements.

8. (Withdrawn) The system of claim 7, wherein said exterior surface features include planar surfaces.

9. (Withdrawn) The system of claim 7, wherein said exterior surface features include recesses.

10. (Withdrawn) The system of claim 9, wherein said material is placeable in the intravertebral space around said plurality of reduction elements and in said recesses thereof for post-operative maintenance and stability of said plurality of reduction elements in the intravertebral space.

11. (Original) The system of claim 7, wherein said exterior surface features include a cavity extending through said reduction element.

12. (Previously presented) The system of claim 1, wherein said material is placeable in the intravertebral space around said plurality of reduction elements for post-operative maintenance and stability of said plurality of reduction elements in the intravertebral space.

13. (Original) The system of claim 12, wherein said material is selected from the group consisting of: PMMA and resorbable bone cement.

14. (Original) The system of claim 1, further comprising a delivery member positionable adjacent the intravertebral space, said delivery member including a passage for delivery of said plurality of reduction elements thereto.

Claims 15-43 (Cancelled)

44. (Currently amended) An intravertebral reduction system, comprising:
a plurality of reduction elements positionable in an intravertebral space adjacent one another in contact with bony tissue, wherein said plurality of reduction elements act randomly and radially one upon the other upon sequential positioning thereof in the intravertebral space compressing cancellous bony tissue and applying an outwardly directed corrective force in the ~~intravertebral space to restore the vertebral body, wherein said plurality of reduction elements are selected in number to occupy a volume within the intravertebral space that reduces a vertebral fracture and restores the vertebral body;~~

voids between respective ones of said plurality of reduction elements; and
material filling said voids and rigidly fixing said plurality of reduction elements at said volume in engagement with one another in the intravertebral space for post-operative maintenance of the reduction of the vertebral body, said material locking said plurality of reduction elements relative to one another.

45. (Previously presented) The system of claim 44, wherein said plurality of reduction elements each include a spherical shape.

46. (Previously presented) The system of claim 44, wherein said plurality of reduction elements are comprised of a material selected from the group consisting of: PMMA, resorbable polymers, and calcium hydroxide.

47. (Previously presented) The system of claim 44, wherein at least a portion of said plurality of reduction elements include exterior surface features to facilitate engagement between adjacent reduction elements.

Amendment with RCE
Ser. No. 10/648,056
Atty Docket No. MSDI-77/PC753.00
Page 4 of 13

48. (Withdrawn) The system of claim 47, wherein said exterior surface features include planar surfaces.

49. (Withdrawn) The system of claim 47, wherein said exterior surface features include recesses.

50. (Withdrawn) The system of claim 49, wherein said material is placeable in the intravertebral space around said plurality of reduction elements and in said recesses thereof for post-operative maintenance and stability of said plurality of reduction elements in the intravertebral space.

51. (Previously presented) The system of claim 47, wherein said exterior surface features include a cavity extending through said reduction element.

52. (Previously presented) The system of claim 44, wherein said material is placeable in the intravertebral space around said plurality of reduction elements for post-operative maintenance and stability of said plurality of reduction elements in the intravertebral space.

53. (Previously presented) The system of claim 52, wherein said material is selected from the group consisting of: PMMA and resorbable bone cement.

54. (Previously presented) The system of claim 44, further comprising a delivery member positionable adjacent the intravertebral space, said delivery member including a passage for delivery of said plurality of reduction elements thereto.

55. (Currently amended) An intravertebral reduction system, comprising:
a plurality of reduction elements positionable in an intravertebral space adjacent one another in contact with bony tissue, wherein said plurality of reduction elements include exterior surface means for facilitating engagement between adjacent reduction elements and

Amendment with RCE
Ser. No. 10/648,056
Atty Docket No. MSDI-77/PC753.00
Page 5 of 13

for facilitating said reduction elements acting randomly and radially one upon the other upon sequential positioning thereof in the intravertebral space to compress cancellous bony tissue and apply an outwardly directed corrective force in the ~~intravertebral space to restore the vertebral body, wherein said plurality of reduction elements are selected in number to occupy a volume within the intravertebral space that reduces a vertebral fracture and restores the vertebral body;~~

voids between respective ones of said reduction elements; and material filling said voids and rigidly fixing said plurality of reduction elements at said volume in engagement with one another in the intravertebral space for post-operative maintenance of the reduction of the vertebral body, said material locking said plurality of reduction elements relative to one another.

56. (Previously presented) The system of claim 55, wherein said plurality of reduction elements each include a spherical shape.

57. (Previously presented) The system of claim 55, wherein said plurality of reduction elements are comprised of a material selected from the group consisting of: PMMA, resorbable polymers, and calcium hydroxide.

58. (Withdrawn) The system of claim 55, wherein said exterior surface means include planar surfaces.

59. (Withdrawn) The system of claim 55, wherein said exterior surface means include recesses.

60. (Previously presented) The system of claim 59, wherein said material is placeable in the intravertebral space around said plurality of reduction elements and in said recesses thereof for post-operative maintenance and stability of said plurality of reduction elements in the intravertebral space.

Amendment with RCE
Ser. No. 10/648,056
Atty Docket No. MSDI-77/PC753.00
Page 6 of 13

61. (Previously presented) The system of claim 55, wherein said exterior surface features include a cavity extending through said reduction element.

62. (Previously presented) The system of claim 55, wherein said material is placeable in the intravertebral space around said plurality of reduction elements for post-operative maintenance and stability of said plurality of reduction elements in the intravertebral space.

63. (Previously presented) The system of claim 62, wherein said material is selected from the group consisting of: PMMA and resorbable bone cement.

64. (Previously presented) The system of claim 55, further comprising a delivery member positionable adjacent the intravertebral space, said delivery member including a passage for delivery of said plurality of reduction elements thereto.

Claims 65- 66 (Cancelled)

67. (Previously presented) The system of claim 1, wherein said plurality of reduction elements are selected to occupy sufficient intravertebral space to restore a height of the vertebral body between endplates thereof.

Claim 68 (Cancelled)

69. (Previously presented) The system of claim 44, wherein said plurality of reduction elements are selected to occupy sufficient intravertebral space to restore a height of the vertebral body between endplates thereof.

Amendment with RCE
Ser. No. 10/648,056
Atty Docket No. MSDI-77/PC753.00
Page 7 of 13